

ABSTRACT OF THE INVENTION

A method for driving a semiconductor memory including a field effect transistor having a gate electrode formed on a ferroelectric film includes the steps of writing a data in the semiconductor memory by changing a polarized state of the ferroelectric film by applying a voltage to the gate electrode, and reading a data written in the semiconductor memory by detecting a current change appearing between a drain and a source of the field effect transistor by applying a voltage between the drain and the source of the field effect transistor with a voltage applied to the gate electrode. The magnitude of the voltage applied between the drain and the source of the field effect transistor in the step of reading a data is set within a range where a drain-source current of the field effect transistor increases as a drain-source voltage thereof increases.